

Commodity Highlight: Romaine Lettuce

Over the past 15 years, romaine lettuce (also known as cos) has been one of this country's fastest growing vegetables in terms of production, consumption, and exports. One of the four main types of the species, *Lactuca sativa* within the sunflower family, romaine has been in the human diet for thousands of years. One of the more nutritious lettuce crops, romaine is a good source of vitamins A and C, folate, and a variety of other nutrients, while remaining low in calories. Originating in the region east of the Mediterranean Sea, romaine is a cool-season crop, which grows well in the desert southwest during the winter and along the central coast of California at other times. Romaine features long, broad, upright leaves that produce heads. The three other types of lettuce are crisphead (which includes the ever popular variety known as iceberg), butterhead lettuce, and looseleaf lettuce.

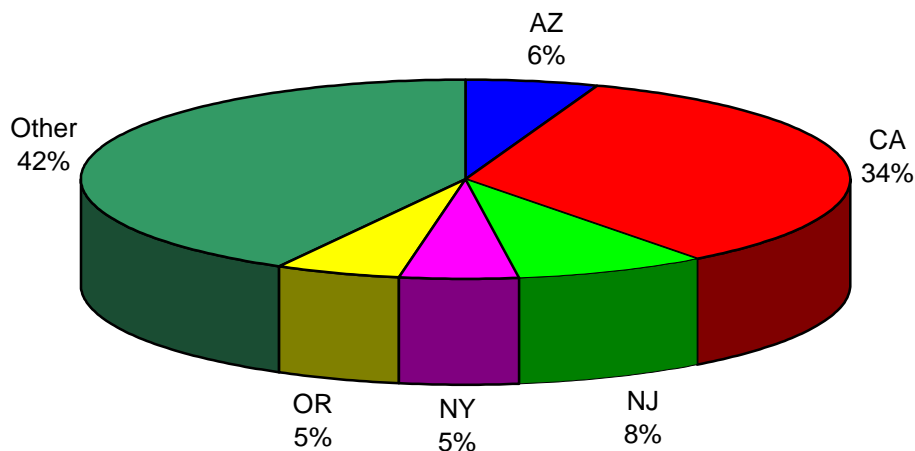
Lettuce of all types has long been a popular base ingredient in salads. Romaine likely garnered much of its early popularity in the United States as the primary ingredient in the Caesar salad, which was said to be invented in Mexico during the 1920s by a chef who named it after himself. Although the Caesar salad is as popular as ever today, the scope of romaine lettuce has broadened considerably in the U.S. diet. Romaine is now a staple in the supermarket produce section in bulk displays, prepackaged romaine hearts, and a wide variety of prepackaged salads and salad kits. In the foodservice arena, romaine can be found on virtually every salad bar, in a wide variety of entrée salads, Greek salads, and various sandwich wraps (romaine leaves wrapped around filler such as chicken).

In 2002, the Census of Agriculture disclosed romaine separately from other lettuce for the first time. The Census indicated that 59,825 acres of romaine were produced by 709 farms in the United States. One-third of the farms with romaine are in California with the remainder spread over 37 other States. Production is highly concentrated, with just 5 percent of the Nation's annual crop produced outside of California (73 percent) and Arizona (22 percent).

The United States is the second largest producer of all lettuce in the world (21 percent), following China (48 percent) and well ahead of third-place Spain (5 percent). Although its share has been declining as leaf and romaine have gained in popularity, iceberg (head) lettuce still accounts for two-thirds of all the lettuce grown in the United States. During 2002-04, romaine lettuce accounted for 22 percent of all

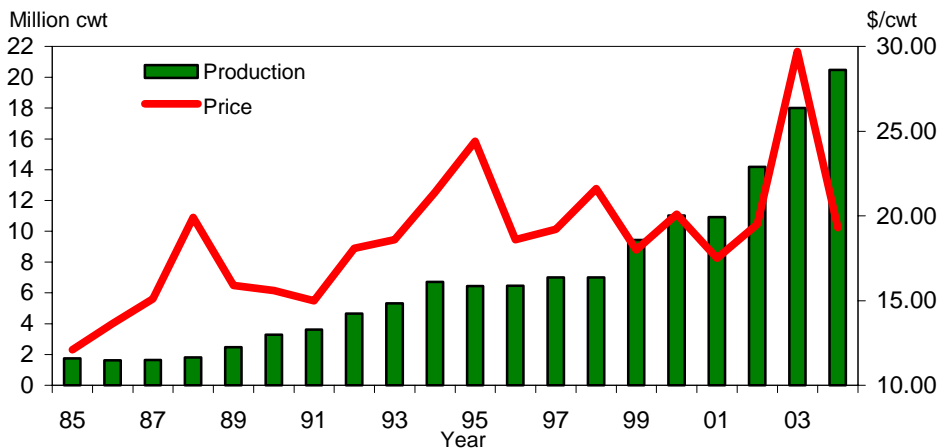
Figure 11

U.S. romaine lettuce: Number of farms, 2002



Source: 2002 Census of Agriculture, NASS, USDA.

Figure 12

U.S. leaf & romaine lettuce: Production & shipping-point price

Source: National Agricultural Statistics Service, USDA except for 1985-91 from the Calif. County Agricultural Commissioners.

lettuce produced in the United States, up from 8 percent during 1992-94. In 1992-94, more looseleaf lettuce (10 percent of the lettuce crop) was produced than romaine. Available year round, the production of romaine has increased dramatically over the past 15 years. During 2002-04, U.S. romaine production totaled 2.26 billion pounds—more than three times the output during 1992-94.

During 2002-04, the farm value of the U.S. romaine lettuce crop averaged \$534 million, up from \$131 million in 1992-94. The value of the romaine crop now exceeds that of crops such as carrots, cucumbers, cabbage, and cantaloup. California, by virtue of its year-round growing season, accounts for three-fourths of the romaine crop value. With lower productivity (yield) per acre, the season-average price for romaine usually exceeds that of head lettuce but is typically less than that of looseleaf lettuce.

The export market is very important for lettuce of all types. Lettuce is one of the most important vegetable crops exported from the United States. In 2002-04, the value of all lettuce exports was \$250 million, of which 59 percent was lettuce other than head lettuce (leaf and romaine). Romaine and looseleaf lettuces are grouped together under the same export and import codes, which makes determining their respective trade volumes difficult. Exports of romaine and leaf have more than doubled from 216 million pounds in 1992-94 to 461 million pounds in 2002-04.

In a reflection of strong domestic demand, although the volume of leaf and romaine lettuce exports more than doubled, the share of leaf and romaine supply exported actually decreased from 14 percent in 1992-94 to 13 percent in 2002-04. Most of the volume is shipped to Canada (91 percent in 2004) and Mexico (4 percent), with Japan rising to 3 percent of volume in 2004. Export volume is lowest during the summer (less than 20 percent of volume) since Canada's farms are in production.

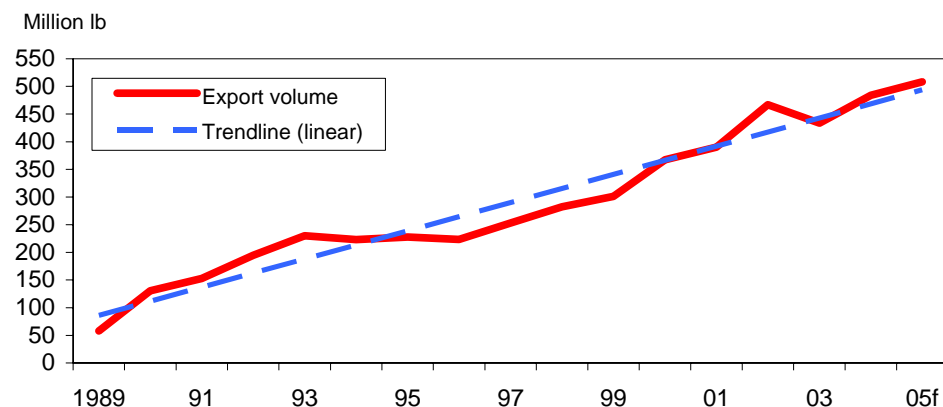
Similar to the head lettuce market, imports also play a minor role in the romaine lettuce market. The share of leaf and romaine consumption satisfied by imports has largely remained around 1 percent for the past 15 years. About two-thirds of imports enter during the summer. Imports averaged 34 million pounds in 2002-04, with most of the volume arriving from Canada (61 percent in 2004) and Mexico (36 percent).

In terms of domestic disappearance (also known as consumption), lettuce of all types is second only to potatoes, with total use averaging 9.7 billion pounds in 2002-04. Disappearance of leaf and romaine lettuce together averaged 3.2 billion pounds in 2002-04—up 138 percent from 1992-94 and one-third of all the lettuce consumed in the United States. Disappearance of romaine lettuce alone averaged about 2 billion pounds during 2002-04 (table 20)—up 240 percent since 1992-94. Domestic disappearance of romaine lettuce increased 81 percent from 2000 to 2004 alone.

Per capita use of romaine lettuce has tripled since 1992-94, when it averaged 2.3 pounds. By 2004, per capita use of romaine lettuce had reached a record 8.1 pounds—up more than 4 pounds since 1999. Among several factors, part of this explosive growth is likely due to the expanding use of romaine in the foodservice industry and the continued strength of retail fresh-cut salad sales. Since 2000, supermarket sales of fresh-cut salads have more than doubled to over \$3 billion.

Figure 13

U.S. leaf & romaine export volume is trending higher



Source: Bureau of the Census, USDC except 2005 forecast by ERS.

Table 20--U.S. romaine lettuce: Estimated supply, disappearance, and price

| Year | Supply | | | Utilization | | | Season-ave. price | |
|----------------------|------------------|---------------|---------|---------------|----------|----------------------|--------------------------|---------------------------|
| | Production 1/ | Imports 2/ | Total | Exports 2/ | Domestic | Per capita use | Current dollars 1/ | Constant dollars 3/ |
| -- Million pounds -- | | | | | | | | |
| 1985 | 174.7 | -- | 174.7 | -- | 174.7 | 0.73 | 12.10 | 17.36 |
| 1990 | 328.3 | 3.7 | 332.0 | 40.4 | 291.6 | 1.17 | 15.60 | 19.12 |
| 2000 | 1,504.5 | 18.2 | 1,522.7 | 204.5 | 1,318.2 | 4.67 | 19.90 | 19.90 |
| 2001 | 1,506.7 | 19.7 | 1,526.4 | 222.2 | 1,304.2 | 4.57 | 19.30 | 18.85 |
| 2002 | 1,856.4 | 19.5 | 1,875.9 | 271.0 | 1,604.9 | 5.57 | 25.20 | 24.21 |
| 2003 | 2,253.8 | 20.4 | 2,274.2 | 267.2 | 2,007.0 | 6.90 | 27.60 | 26.04 |
| 2004 | 2,684.4 | 23.7 | 2,708.1 | 326.7 | 2,381.4 | 8.10 | 19.10 | 17.70 |
| 2005 f | 2,765.0 | 25.4 | 2,790.4 | 343.0 | 2,447.4 | 8.25 | -- | -- |

-- = Not available. f = ERS forecast. 1/ Source: NASS, USDA except 1985 and 1990 from the California County Agricultural Commissioners reports. 2/ Estimated by ERS based on data from the Bureau of the Census, USDC. 3/ Constant-dollar prices calculated using the GDP deflator, 2000=100.

Note: For the most recent information on romaine, see: <http://www.ers.usda.gov/publications/vgs>